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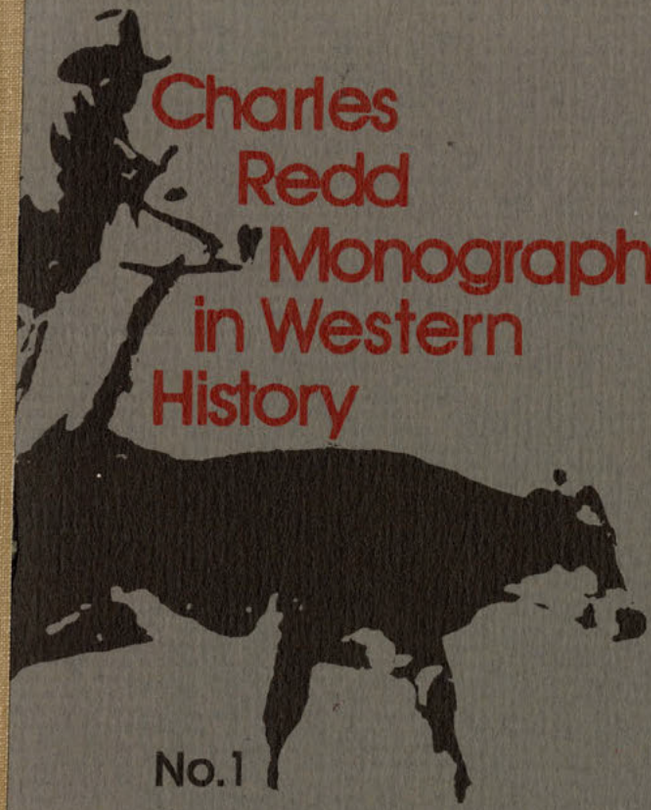

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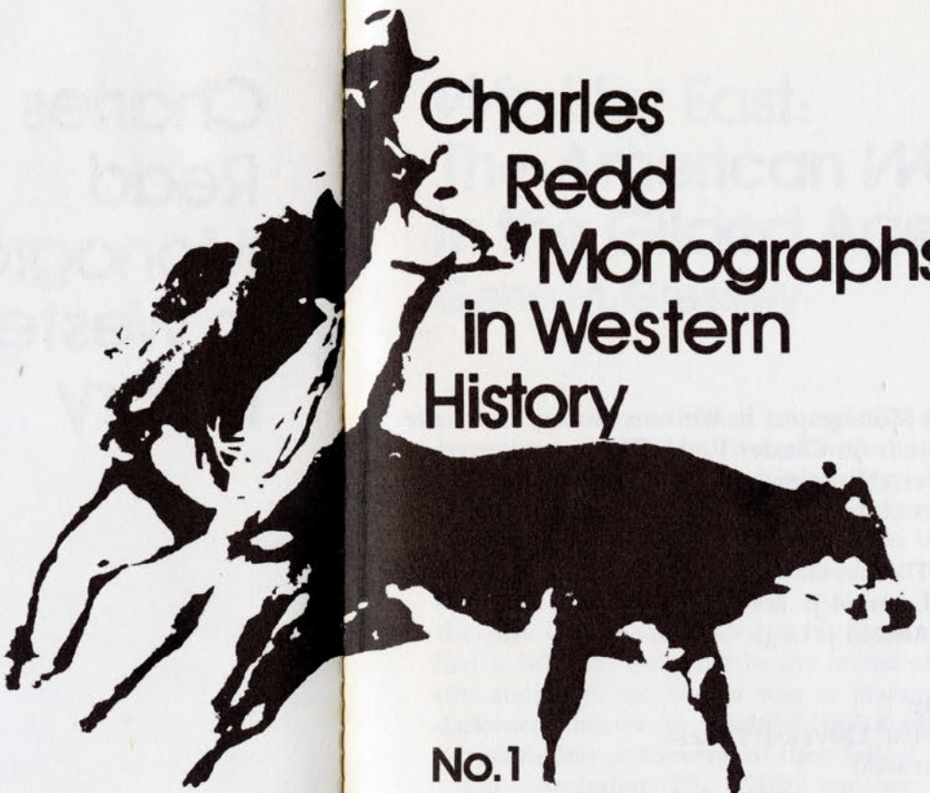

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West by East: The American *West* in the Gilded Age

Gene M. Gressley

On an inclement March eve in 1878, an appreciative Cheyenne theater audience listened with rapt attention to a "dramatic rendition" of the *Gilded Age.* The gathering in the Opera House, so the *Cheyenne Sun* reported, was in "complete sympathy" with the portrayal of the character of Colonel Beriah Sellers, who epitomized the Western financial promoter.[1] That the Cheyenne audience found empathy with the role of Colonel Sellers is hardly surprising. The frontier had a full "house" cast in the image of Colonel Sellers. All the audience had to do was to glance furtively about the darkened theater to establish quick identification between Beriah Sellers and several of their fellow townsmen.

On November 23, 1900, another Cheyenne audience viewed the thrilling extravaganza, *Quo Vadis,* replete with an "enormous" troupe of over fifty players.[2] In the two decades between the histrionics of the *Gilded Age* and *Quo Vadis,* only the atmosphere of the theater house, permeated by the stale, dank odor, remained the same. What type of transformation had occurred in the West in this quarter of a century?

The question of how the West(s) of 1878 metamorphosed into the West(s) of 1900 is elementary enough, if the answers are not. To anyone considering the problem, several conceptual equations quickly surface. While a pluralistic interpretation appears more rewarding, there are inherent methodological pitfalls commonly ignored in embracing a multicausative approach. On more than one occasion historians have

been prone to scorn the monistic approach, then proceed in an agglutinous manner to jell a host of single, unrelated causative factors under the umbrella of multicausative terminology. The following hypotheses, then, whether singular or plural, are offered only with the premise that in interaction they will produce a modicum of insights into the West's development and growth.

An initial, obvious starting point for any discussion of Western development must be against the backdrop of the national setting. We all recognize that the Far West's economy matured only as it absorbed massive inputs of Eastern capital and technology into the land beyond the hundredth meridian. Indeed, the West's economy followed in kangaroo fashion the behavior of the nation's cyclical gyrations of prolonged downswings and radical upsurges of approximately even duration during the Gilded Age.[3] As the economic expectations of the Westerners exceeded their resources, it was inevitable that the federal government should enter into sectors such as transportation and water resources. Not only were public and private enterprise in the nineteenth century compatible, but the private sector demanded public subsidy. This is not to suggest that public and private accommodation translated into rational planning. Nineteenth-century politicians and entrepreneurs frequently committed themselves to economic goals without the full realization of their own motives behind their objectives or even how they should go about achieving their aims. If one could fully chart the response of state and national policy to nineteenth-century environmental challenges one would discern an amazingly erratic pattern.

Colonialism was—and to a large measure still is—the dominant matrix of Western economic life.[4] What is less commented on is that Westerners, then as now, displayed a substantial "paranoia" toward Eastern domination. A farmer on the banks of the Kaw, a miner in Cripple Creek, or a rancher in the Sun River Valley could be, and often was, as much infected with the imperial vision of the West as the most frenzied financier on Wall Street. Not only did the Westerners

beg for Eastern capital; they went out of their way to ask for Eastern economic dictatorship. This fact more than anything else gives an unreal quality to much of the political protest from the prairies during the late nineteenth century. As recent historiography of the Populist response has shown, the adherents to the Populist cause were often among the more affluent of the agrarian class.[5] A "Pop" in Beatrice, Nebraska, might attend a meeting in the evening listening to a ranting oratory about Eastern exploitation, the next day willingly mortgage his farm to an agent of an Eastern lender, and the same afternoon enthusiastically vote for a bond issue to attract a railroad to his community! In spite of the recasting of the Populist image, it is difficult to escape the conclusion that much of the Populist rhetoric was essentially misdirected, if not irrational, in substance.

While coveting Eastern money, the Westerners adopted (and adapted) Eastern legal and political institutions. Constitutions and legal theory were transferred wholesale from the East. Willard Hurst,[6] in his numerous writings, has brilliantly outlined how the law was called upon to provide the framework for optimum freedom for economic growth. Nineteenth-century Americans may not have had many intuitive insights into systematic public planning and economic priming, but they were strongly production-oriented. The economy, inflated or deflated, was always expected to boom tomorrow.

In fostering this ebullient anticipation of fecundity, Western legislatures were called upon to sanction an unending flow of corporate charters. From the 1870s through the end of the century a phenomenal increase took place in the number of incorporations,[7] as well as in the entrance of venture capital into new and diverse areas. The limited liability stock company found high favor with its twin advantages of reducing risk—enabling entrepreneurs to exploit fiscal resources at hand—and securing a mortgage on the future. Bonds could be and were issued for the entire value of a corporation's assets, in addition to the usual stock issues. In the West, even more than in the East, with the West's extreme scarcity of

capital, stock issues became the favorite corporate device to lure the innocent into a glowing mirage.

The impact of this frenetic corporate boom was not lost on nineteenth-century economic commentators. Edward Bellamy, observing the burgeoning expansion accompanied by tumorous corporate size, sermonized on the basic evils of the world. In one passage in his utopian novel, *Looking Backward,* Bellamy has his Victorian mannequin character, Dr. Leete, orate:

> *Meanwhile, without being in the smallest degree checked by the clamor against it, the absorption of business by ever larger monopolies continued. In the United States there was not, after the beginning of the last quarter of the century, any opportunity whatever for individual enterprise in any important field of industry, unless backed by a great capital.*[8]

Bellamy's answer of syndicalism and socialization of industry won him wide readership, some influence, and little political impact.

Whether the Edward Bellamys recognized it or not, however, the mythology of competition was very much engrained in American culture. The courts, by judicial review of restraint of trade laws, aimed not at the corporate behemoths but at the middle-sized corporate structure so conducive to the forming of cartels.[9] Pragmatically what happened was that even larger megatherian corporations appeared that escaped legal sanctions as long as they avoided monopolizing an entire horizontal industrial sector.

A crucial element within this business ethic of social Darwinism, competition, and gargantuan growth was the social role of the entrepreneur, whose failures may reveal as much about nineteenth-century economics as his successes. The graphic contrast between the performance of a James Joy or a Charles Perkins tells us much of the problems transportation mobilizers faced in pushing west. There has been a tendency to lose sight of how innovative corporate financiers

could be, particularly in the managerial transition between the capital accumulators of the genre of Henry Villard or Jay Gould and the corporate reorganizers in the class of John Murray Forbes or J. Pierpont Morgan.

In fact, much of Morgan's mystique derived from an enviable reputation as a railroad reorganizer. Time and again, Morgan followed a model that he devised early in his career. First, the initial and seemingly horrendous problems which had precipitated the railroad's collapse were solved by refinancing. Second, by means of voting trusts he retained the supervision of the railroad long after the period of reorganization. Third, he continually advocated and fought for the concept "community of interest." For the bulbous-nosed, walrus-mustachioed Morgan, unregulated competition became equated with sin.[10] Today this rudimentary corporate performance seems passé, but in Morgan's day it was revolutionary. Nothing was as vital to Western transportation as the evolution from the opportunistic Gould to the organizer Harriman. This entrepreneurial transformation, as much as any signal augury, indicated the change that had taken place in the approach to national as well as sectional economic development in the Gilded Age.

In relief to this Eastern ethic and innovation, the West grafted on its own ideology of progress. In formulating this optimistic design, the Westerner derived his thought from the East. Many Westerners in isolated pockets were infected with a strong Hamiltonian outlook. While the Westerner unceasingly hunted for leverage to augment his limited capital, he insisted also on talking over Eastern institutional paradigms. As strongly Hamiltonian as many Westerners were, they had a strong strain of Jeffersonianism which penetrated many of their pronouncements. Belief in localism, even though it was more often than not contrived, became as strong a tradition as the Fourth of July celebrations. The expressions of this Jeffersonianism may have seemed to be aberrations to some of the Westerner's contemporaries. As Leo Marx has written, he might be one with nature, but it was a nature that some contemporaries translated rather innocuously in the met-

aphor of the garden.[11] Agrarianism, the idealization of the homestead (the adjective *small* came only with the surrender to poetic enamorment of later years), and moral progress were all part of the Westerner's native or imported warp. Nor did he forsake his libertarian philosophy when he migrated from East to West. For in reality, liberty meant individual liberty to the nineteenth-century man.

Middle-class in perspective, optimistically hopeful for material progress, the Westerner was imbued with a strong booster psychology, a trait on which many an Eastern entrepreneur and Western promoter capitalized time and again, often to the disastrous embarrassment of all concerned. Along with these characteristics, the Westerner possessed a powerful opportunistic sense; there was a preoccupation with the present and then the future. If economic rewards did not come today, they would tomorrow or the morrow after that. This is another clue that helps to explain the failure of political revolt. The politics of pessimism colored far too much of the protest movements far too long to appeal to Westerners en masse. Instilled with the idea of progress, the Westerner remained basically convinced that there was a bright future. This does not mean that he was starved for status. All that most Westerners of the 1880s and 1890s were committed to was simply the very materialism to which their fathers and grandfathers had paid homage. There is little profit in codifying that drive into psychological cravings of insecurity for social mobility. Unembellished, the Westerner's essential economic desires were basically for more blessings than he possessed today. Furthermore, enveloped by the spirit of the age of boosterism and optimism, he had the right to better tomorrows. In sum, the resident of Wichita brought with him the same cultural ethos as his cousin in Columbus; more introspection seems a worthless exercise.

The Westerner, *sui generis,* the nineteenth-century American, surrounded and entrapped by an amazing wealth of natural resources, desperately desired to exploit his environment with all haste. Abundance may or may not be a magic key to the understanding of American character, but the

Westerner could not, had he even wanted to, shun the vastness of the natural environment that he confronted day in and day out. His character, his goals, his hopes all related to his ability to cope with his surroundings. In the exploitative encounter with his environment, the Westerner employed a mixture of Hamiltonian means with Jeffersonian aspirations.

Of course, there is a danger in overspeculation about the philosophical premises of the pragmatic Westerner. Fortunately, the policies that he devised to fashion territorial and state political and economic policy were more concrete than his thought. During much of the Gilded Age, admission to the federal union became a badge of political maturity, an objective eternally sought but just as often frustrated by national political crosscurrents. While statehood became an ephemeral Valhalla, much of the legal structure and agencies for economic policy arose from territorial foundations.[12] Whether directed or erratic, conscious or unconscious, state and/or territorial progress depended on an increase of population, advancement of technology, and accumulation of capital. In essence, state legislatures missed far too many propitious opportunities to form policy. All too much of their legislation was provincial, immature, and unrealistic. Myopic legislatures commonly reflected the primitive nature of state and territorial political objectives. As Lewis Gould has commented in his brilliant study of Wyoming's territorial *mise en scène,* personalities dominated in lieu of parties, and factions had a way of displacing issues. Sectionalism and factionalism characterized Western politics. Much, far too much, has been made of the notorious history of the various territorial and state political "rings," such as the Cheyenne ring in Wyoming, the Yankton ring in the Dakotas, the Santa Fe ring in New Mexico, the Helena ring in Montana, the Boise and Missionary rings in Idaho, and so on.[13]

Symbolizing sinister corruption, historically these rings have connoted all that was evil in Western political life, their members reputedly being veritable robber barons and medieval lords who tyrannized over their political opponents. Actually, as jowly old Tom Catron of Santa Fe knew so well,

rings merely represented factions in territorial politics and were as vulnerable to the mercurial temperament of the electorate as any other political machine. Where there was a ring there was a competitive junta, perhaps not as picturesque or as potent, but inevitably the opposition would eventually switch places with the "rulers." Over a long spectrum of time, Catron never succeeded in consistently holding sway over more than a few north-central counties in New Mexico. The Boise ring was not only limited geographically, but its effective time span was unusually short.

The pattern of personal politics in the West should not be surprising; after all, individualistic leadership dominated the national political stage until the last fading moments of the Gilded Age.[14] This is not to contend that economics and politics were divorced in the West or the East; far from it. The most adroit and powerful political figures operated from an economic base. Most assuredly, Western financiers of the class of Hauser, Catron, and Wolcott would wail loudly about their lack of capital in comparison to their Eastern counterparts, the Rogers, Harrimans, or Goulds, with whom they might joust for the same rich morsel, sometimes to their undying misfortune. Tom Catron had his land and mines; Francis E. Warren his livestock and mercantile interests; Henry Teller his mines, law, and real estate. Indeed, locating a prominent political figure sans economic substance was as difficult in the West as in the East.

What has received far less attention than the antics of the robber barons, Eastern or Western, is the interregional colonialism of these provincial oligarchies. Colonialism as a phenomenon has been almost entirely restricted to Eastern imperial continental mercantilism over the West. Sporadically, the Westerner reversed this trend and invested outside his territorial boundaries. In fact, there is every evidence that the Westerner with surplus capital could be enticed to invest as far away from his locale as the Easterner could. Interregional investment could on occasion even originate from transoceanic capital flow. Profits from British stocks in Cripple Creek mines provided the surplus for a group of Colorado

Springs entrepreneurs to speculate in Wyoming petroleum.[15] The enormous wealth gushing from this amazing gamble in turn poured into Southwestern real estate and Mexican lumber, again bringing high dividends to these golden promoters.

Another classic case of interregional financial transfusion came when Richard Penrose garnered substantial dividends from his Commonwealth mine in Pearce, Arizona. Visiting his brother, Spencer Penrose, in Colorado Springs some years after the Pearce bonanza, Dick Penrose learned of a Daniel Jackling, whose process for the extraction of low-grade copper deposits at Bingham, Utah, was revolutionary.[16] The rest of the tale, including the formation of the Utah Copper Company, has become one of the legends of the mining West. Taking their enormous profits from this enterprise, both Penroses plunged into mining and real estate speculation the world over.

One mining figure, Senator John Percival Jones, of Gold Hill, Nevada, and Santa Monica, California, went so far as to use some of the profits from his Crown Point mine to take a flyer in New York City traction and later Chicago real estate.[17] Another Nevada senator, William Stewart, had heavy financial commitments in New York City traction,[18] as did Francis Newlands, who also created a suburb of Washington, D.C.: Chevy Chase, Maryland.[19] There is every reason to assume that had more citizens west of the hundredth meridian possessed more surplus capital, interregional investment would have gone on at a much faster pace. Obviously where one clipped his coupons made little difference, especially since anyone with reputed riches was soon ferreted out by clouds of promoter locusts for the "unique and unrivaled" opportunity.

Western investors, like Eastern financiers, tended to congregate in packs of family alliances or financial oligarchies (sometimes with lemming consequences). However, Lord Bryce, in his oft-quoted *American Commonwealth*, did not see the Western expressions on economic or political subjects as microcosms of Eastern counterparts. The learned viscount noted: "Western opinion is politically unenlightened, and

not anxious to be enlightened. It dislikes theory, and holds the practical man to be the man who, while discerning keenly his own interest, discerns nothing else beyond the end of his nose." [20]

What Lord Bryce missed was that the Westerner could be both strongly national and enthusiastically provincial in his convictions. Further, to admit this wavering and symbiotic relationship is only to concede that Westerners once resided east of the Mississippi. In approaching Western history from the constitutional standpoint, one is impressed by the measure of sovereignty that Congress exercised over the territory. [21] Congressional supremacy became a perpetual stumbling block for the territories in their statehood ambitions. At least theoretically, as interpreted by both territorial and federal courts, federal overlordship was the legal basis behind much federal-territorial relationship. Pragmatically, as Earl Pomeroy has noted in his now-classic treatise, the federal supervision of the territories was erratic, haphazard, and not infrequently ineffective. [22] If the Wall Street investor had difficulty deciphering his manager's reports on the Bobtail mine, he was no more perplexed than many a senator who tried to fathom the desires of a constituency in a land he had never seen and little understood.

While the Westerner would with alacrity talk about Washington's neglect, it is intriguing that in territorial debates on statehood one can uncover so little in the way of flagellation of congressional supremacy. Open defiance of Congress, of course, would have been impolitic and stupid, but subtle clauses buried in a state's constitution would have risked little.

The Westerner often expressed far more concern about Eastern entrepreneurial intentions than he did about congressional theory. From their inception, territorial and later state policy concentralized on promotional goals, though they continually lost sight of their objectives and pledged themselves with unerring consistency to ignoring potentialities. In his brilliant and pioneering study, Gerald Nash traces the motivation behind demands made on state government on behalf

of corporate enterprise, as for franchises and charters of incorporation. [23] The private drafts made on public policy in California found repetition across the West. State and local governments lavished subsidies without any investigation of the relationship between the economic task to be performed and the cost. Legislators mesmerized by boosterism fervently believed that investment regardless of the object was *sine qua non* meritorious. The resultant legislative largesse is apparent to anyone glancing over the record (or wreckage) of Western corporate disasters. The history of the West is crammed with corporate mishaps, ill-conceived, inadequately financed, and poorly managed.

The West's wholesale commitment to enterprise for the sake of enterprise led time and again to economic suicide. Westerners were bewitched by the facade of economic progress. It was enough just to know that a railroad track was to be laid, a mine dug, or an irrigation company organized. This frantic thrust towards the future expressed itself in untenable public policy. Territories and states passed tax measures to remove their primary home industries from the tax rolls—all under the guise of patronizing economic localism. New Mexico in 1878, in an attempt to "bundle" railroads and salvation, exempted "all the property" of railroads from taxation. [24] When an unbeliever in the legislature contested the bill, the New Mexico Supreme Court rendered a decision which not only upheld the constitutionality of the law but advanced it one step further by encompassing within the definition of "property" all "capital stock."

One of the earliest concessions to special privilege, passed on the assumption that it would attract Eastern capital, was the Montana mines tax of 1872. [25] Still the target of controversy a half century later, the tax stood as an enduring monument to the subversion of public to private interest. The mining industry lobby won similar tax exemptions in Colorado and Idaho, but their special-interest legislation stood for far shorter lengths of time than Montana's laissez faire.

Varying with the territory or state, with the times, and with the specific railroads, numerous railroad corporations

flourished with tax discriminations. Railroad lands, however, became the sharpest quintain for the spears of tax reformers. Recent historiography has altered the usual exploitative satanical view of railroads and the public domain.[26] Nevertheless, abuses were common; railroads held blocks of acreage off the market via the device of simply not patenting it. The public-domain policy of the nation shares the responsibility for this situation. Regardless of accountability, enormous swaths of public land escaped taxation long beyond any *raison d'être.* Preferential treatment in land taxation represented only one of the many imaginative tax bounties lavished on railroads. For years the Dakotas had a railroads' gross-earnings tax, which the railroad executives computed on a mileage basis, effectively disguising their earnings ratio.[27]

Ironically and inexplicably against the hue and cry of protest in the nineties, it is still a matter of considerable conjecture whether railroads purchased legislatures or vice versa. That territories, states, and communities went to extraordinary lengths to lure railroads to their areas is well known and long documented. A recurring theme less well observed in Western history is the colonialism inversion model, whereby the Western provinces became astoundingly creative in devising techniques to abet their own self-exploitation. Pushing themselves into bankruptcy by passing bond issue after bond issue and warping legislation were all part of the grand railroad strategy game in the late nineteenth century—repetition of the entire morality play that had been performed with great skill in the East several decades earlier and was still going on, although sometimes the curtain was down.

In this scramble for transportation deliverance, common territorial complaints centered on the unfairness of congressional legislation in denying the bounties of land grants to the territories. These vociferous bewailings ignored a specific congressional gratuity. On March 4, 1875, Congress passed a broad-coverage railroad right-of-way law. Any railroad building through the public domain in the territories received a hundred feet of land on either side of the track,[28] plus

twenty acres for every station, not to exceed one station per ten miles of track. Finally, under the same law, railroads were given access to timber and stone on their right-of-way lands.

The mere hint that a railroad might pass through their territory or community united all the inhabitants in common supplication, although it would be a distortion to imply that these mutual bonds welded by promotional pursuit were an evidence of a unified society. Western provincialism could, and frequently did, result in the molecularization of community life. Economic interests suffered from the same fragmentation as political factions. If one is seeking denominators for insights into Western society he will more likely find them in atomization than in solidarity.

One of the more useful ways to understand the post-Civil War West is to examine economic motivation from the vantage point of the intersection of public and private interest. As we consider land disposal, railroad expansion, urbanization, mining, and the spread of agriculture, the omnipresent private-public interest, either in competition or agreement, shadows all issues.

At the focal point of the entire governmental and private interest was the enormous and often mysterious presence of the public domain.[29] The disposal and administration of this massive hinterland overshadowed all decision-making relative to the development of the nineteenth-century West. Only as the answers to questions on land policy unfolded did the West attract substantial capital inputs from the East. As the years passed by, Congress muddled through several theorems, which, if not accommodating the diversity of all the pressures for disposal of land, at least provided guidelines for controversy. First, Congress showed no sustained desire to speculate by holding land off the market for a higher return. Nor did many state legislatures favor speculation. In part, but only in part, this was due to the Jeffersonian ideal of the lush, green homestead. Just as crucial was the desire to utilize the bounty of land as a multiplier for national wealth. Short (or so it thought) on funds but "long on land," Congress preferred to barter land to achieve its long-term economic objec-

tives. The munificent donation of land grants for railroads is all too familiar a tale. Less appreciated, as Paul Gates in his erudite history of the public lands shrewdly notes, is that Congress in the Pacific railroad acts of 1862 and 1864 showed little hesitation in propitiously violating the major tenets of its previous public land policy.[30] What many contemporary and later critics were loath to concede was the patently self-evident fact that the domain sans transportation was worthless. Only as land grants came under increasing attack for their misapplication did Congress reluctantly sever its umbilical cord to railroad promotion through subsidies in land.

Another ogre whose villainous deeds rivaled the railroads in protest folklore was the land speculator. If today we have difficulty in even defining a speculator, the nineteenth-century homesteader had few problems in recognizing the speculator species. In essence, he was a persona non grata, (a) who held sizable blocks of land off the market in anticipation of a rise in value; (b) who refused to share his "just" amount of tax burdens; and, most horrible of all, (c) whose resources enabled him to purchase the most attractive parcels—indeed the precise ones that the homesteader coveted!

Again, as so often in Western history, the homesteader or town dweller damned his image of the devil, only to imitate Mephistopheles as quickly as possible. We need more studies, in microscopic detail, of the public domain than we now have to know whether the small homesteader profited from the game of speculation as much as the absentee Eastern landlord. We do know that by the device of relinquishment, endless streams of homesteaders filed on surplus land adjacent to their own holdings with the high hope of an inflation in price, the returns from which would be plowed back into developing the rest of their acreage. Why not? The farmer, like the merchant and the rancher, had displayed an avaricious appetite for natural resources exploitation.

Apart from the Westerner's rapacious appetite, the public domain became the treasury for the nation's endowment. Were railroads indispensable for the nation's growth? Around

this question an erudite, if not always enlightened, controversy has centered for the past decade. Through quantitative techniques and counterfactual models, Robert Fogel, an econometrician, has propounded several theses for the test of the impact of railroads on the nineteenth-century economy.[31] One, were there alternative modes of transportation? Two, did the interregional distribution of agricultural products depend on the long haul of the railroad? Three, how important was the railroad to intraregional and short-haul agricultural trade? Four, was the railroad a decisive factor in the growth of manufacturing in the nineteenth century?

In answering these queries, Fogel's primary method consisted of analyzing the "social saving" (as defined by Fogel, the difference in a given year between shipping agricultural products between two specific points via railroad and some alternative form of shipment). Selecting 1890 as the test year, constructing his model by linear programming, and finally by establishing a counterfactual model, Fogel arrived at several arresting conclusions. The social saving of railroads over alternative transportation (i.e., waterways and wagon roads) in the north-central region he found to be one-sixteenth of one percent of the national income. Fogel conceded, "The calculation is, of course, subject to considerable error; but there are grounds for having confidence in the result." Switching to computing intraregional shipping, Fogel's mathematical peregrinations led him to the premise that the social saving of railroads over waterways was about one per cent of the gross national product.

In scrutinizing the railroads' impact on the manufacturing industry, Fogel counterpoised W. W. Rostow's "take-off" theory as his counterfactual testing model.[32] Comparing his own model to Rostow's, Fogel found that railroads consumed less than twelve per cent of the crude iron production for the entire 1830–76 era. Absorption of coal and lumber by railroads represented a similarly "small" proportion of the total production of these commodities. Unlike Paul Cootner, though, Fogel did not go so far as to propose that railroad building had actually resulted in a drain on the economy.

Highly intriguing and almost totally lost in all the furor surrounding the econometric debate is the fact that Fogel's thesis is a reverse of Cootner's. Fogel maintained that railroad construction was patently insufficient to spark corporate "take-off" in iron and steel industries; Cootner, on the other hand, insisted that railroads were a positive cost, in essence a negative factor on the rate of economic growth.[33]

The Cootner-Fogel juxtaposition unmasks much of the confusion which has enshrouded the inquiry into how much the railroads were an asset or a liability to the nineteenth-century West's economic development. For the critics of the "new" economic history, Fogel's writings have held a lightning rod-like attractiveness. The dissent with Fogel's econometric house has ranged the gamut from expressions of amazement at his methodological concepts, to challenges of his statistics and geographical test regions, to suggestions that he asked the wrong questions of his data. Many historians have commented on the self-evident—that numerical answers to historical riddles are only one-dimensional in scope. What about the issues that are not reducible to dots on a linear graph? The railroads opened up huge demesnes of the land cut off from waterways, thereby merging immigration with productivity. What would have been the cost of exploiting the Rockies without them? By narrowly restricting the model to agriculture, Fogel distorted and underassessed the subscription of railroads to the national economy. What of passenger traffic? Further, Fogel ignored the railroads as an innovating idea in the business corporation. That it is admittedly difficult to overlay the total railroad image on an econometric model of the nineteenth-century economy should not blind us to the railroads' multiphasic impact simply because the clues are unknown. The railroads' institutional innovations in administrative structure are beyond the algebra of econometricians. How can anyone measure entrepreneurial leadership in railroad systems?

The above are a few of the more general censures flung at econometricians by their detractors. On more specific dissent, Fogel's linear programming received challenges from

several quarters: First, that selecting of the date of 1890 was both arbitrary and erroneous. Far from being a typical and testable year, 1890 was one when a major share of the railroad system had not reached maximum efficiency. Further, that by basing his case on the Chicago-to-New York freight rates Fogel propounded a significant distortion. A chief feature to this misrepresentation was the low cost of lake transportation. Fogel's credibility concerning canal rates was also called to account; one investigator discovered that the average freight rate per ton mile on New York canals was 0.26 cents, almost twice the amount of 0.139 set by Fogel.[34]

There is little point in belaboring the cross fire between the proponents of the new economic history and their protagonists. However, several inferences break through this quagmire of controversy: One, most historians illiterate in the ways of deciphering the mysteries of mathematical symbols tend to be uneasy with the unknown. Unable to verify the equations in front of them, they push them aside as unworthy of their speculation. Two, having admitted that historians may put on blinders when decoding the cuneiform of econometricians, one must also concede that there is much in the econometric deductions which, if not antihistorical, is at best nonhistorical. As part of their creed, econometricians insist that historians have used counterfactual arguments for centuries (if Napoleon had won at Waterloo, and so on). True, historians have long daydreamed by considering historical alternatives, but the point missed by econometricians is simply that historians seldom dignify these flights of fancy as any more than just that—conjectures, no more, no less. Far too much of econometric history depends on the model chosen and the counterfactual model selected as the theoretical measuring stick. The result is inflated with airy, unsubstantiated assumptions.

Ancillary to the preceding paragraph, but little noted in the debate, is that one of the major uncertainties imbedded in much of the econometric theorizing is the imprecision of our nineteenth-century statistics. For substantiation of this point, all one has to do is to thumb the massive volume

Trends in the American Economy in the Nineteenth Century[35] to realize that in spite of recent advances to narrow the numerical guessing game, much of our statistical knowledge still remains imprecise at best.

After surveying the literature surrounding Fogel's thesis, one can only charitably conclude that there is little left of his original structure. But discounting the pose one assumes in the econometric debate, no development has so quickly caused so much rethinking by economic historians as the quantitative dimension, linked with economic theory, counterfactual models and the rest of the econometric paraphernalia.

One does not have to glance far beyond the econometric horizon to uncover the enormous contributions of the railroad to the undeveloped West in the Gilded Age. Indeed, it would be immensely difficult to overemphasize the import of the railroad for Western agriculture, urbanism, land policy, national, state and local legislation, extractive resources, and migration. Any time a search is initiated for a vehicle of understanding Western development, the railroad's omnipotent presence dominates the scene.

As a focus for entrepreneurial decision making, the railroad again assumes a crucial position.[36] For the direction and flow of the West's economic maturity came from the board rooms in Philadelphia, New York, and Boston. Where else could one find the tripartite ingredients of managerial know-how, capital, and technology? Most assuredly these elements were meager or nonexistent in the West.

As a nomenclature device in sorting out the levels of capitalistic motivation, Arthur Johnson and Barry Supple, in their arresting volume on the subject of Boston's involvement in Western railroads,[37] divided their financiers into two loose groups under the banners of *developmental* and *opportunistic*. These terms, with their unconcealed connotations, achieve accuracy only in proportion to their gradations. Clearly "speculative" and "developmental" traits could and did appear in the same investor. Or an investor might exhibit developmental behavior in one situation, and take a speculative plunge at the very next opportunity. Nevertheless, while investors as individuals resist tight pigeonholing, the two bins of development and speculative styles have a certain usefulness.

Illustrative of the investment practice of the times, Eastern investment in Western railroads pivoted around Philadelphia and Thomas Scott; New York with the sachems of Jay Gould, Edward Harriman, Russell Sage and J. P. Morgan; Boston with the patrician John Murray Forbes group. Each of these entrepreneurial galaxies manipulated or managed (depending on one's inclination) the railroad corporate structure, though none of these investor clusters, regardless of its managerial stance, had a freewheeling control over its fate. We have been far too free to fling out verdicts on the actions of nineteenth-century financiers, Western or Eastern, as if they were operating in the sterile vacuum of laissez faire. Far from maneuvering in an idyllic, unencumbered state, the railroad capitalists had to fathom the wild gyrations of the stock market and the sharp fluctuations of the cyclical depressions and booms, and see through the financial fog and try to outguess the chess-like moves of their opponents. The ethics of the age may have been no worse or better than those of any other, but from perusing the correspondence of financiers in the Gilded Age one cannot help but feel the stakes were never proportionally higher or the game played with more avidity!

Besides these limiting environmental and ecological factors which narrowed the entrepreneur's decision-making freedom, the dominant note in railroad finance was the capacity to mobilize capital.[38] The creative response to this challenge of attracting financing is one of the accurate gauges of entrepreneurial achievement in Western railroads. For the first hurdle facing any railroad leader was the raising of funds.

The railroad mogul's responses to this challenge could be quite ingenious, as the stockholders of the Erie, Missouri Pacific, and Northern Pacific (to name a few) found out. Axiomatically, the lenders and shareholders had to be rewarded, but the manner of recompense varied. Some Western

railroad leaders distributed stock bonuses for little or nominal consideration, some coupled stock bonuses with their issuance of bonds, some insisted on selling bonds to their shareholders at ridiculous discounts, some marketed long-term bonds, and a few favored short-term but sizable loans.

A pet stratagem, well recognized but with mutations less understood, was the ubiquitous construction company. The exploitation of this device was subject only to the limitations of the financiers' fantasies. In skeletal form, the construction company officials consented to build a specified road for an amount payable in railroad stock and bonds, both of whose par and face values were established to exceed the cost of construction. The stock was then cancelled and the bonds sold to finance construction. The very conspicuousness of the organization of the construction company gave little hint as to the ingenious ways it was twisted, many of which still thwart historical reconstruction.

A more delicate compass than the construction company on which to calibrate entrepreneurial motivation was the managerial ability of the railroad capitalist. Jay Gould became fantastically adept at playing with corporate acquisition by stock manipulation and shrewd trading. His dashing financial raids with both Eastern and Western railroads attracted a following among fellow traders, who walked in the shadow of his complex pirouetting. As his biographer has written, trading, Gould's longest suit, eventually brought about his downfall.[39] In capital aggregation, Gould had few peers; in corporate management he had no rival. Collis P. Huntington, in contrast, held a controlling stock interest in all his companies, sometimes with astoundingly low minority interest.

Whether a Huntington, a Gould, or a Forbes at the helm, the railroads' situation in the 1870s presented common problems demanding imaginative solutions. We have noted the cloud hovering over all financial transactions: the fluctuations of the business cycle. Just as vexatious was the equation of earnings to fixed expenses. All these economic factors were compounded by nature: drought and poor crops turned many balance sheets from black to red.

Casting its spell over all railroad board rooms was the prodigious presence of the public domain. All railroad managers recognized the tremendous potential of the Western hinterland.[40] In truth, much of the railroad history of the Gilded Age could be written from the commanding plateau of the contesting struggle of entrepreneurial groups to wrest the prize (or mirage) of future traffic from another competing organization. The insistence of railroad leaders on preempting any territory that had the remotest possibility of future fertility led to an overbuilt Western railroad system by 1883, and to the verge of bankruptcy for a number of railroads by the end of the eighties. Rate wars and threats of competing feeder lines compounded the chaotic situation.

True, for short periods in circumscribed regions, territorial monopolies or pools brought peace.[41] But these uneasy lulls were inevitably erased in duels of greediness by someone "who would just not cooperate." Still, railroad suzerainty over landed principalities determined the direction and rapidity of much of the West's economic development. The railroads were showered at their insistence by state and local subsidy, as well as federal land grants, and disposal of railroad land became a preoccupation of the speculator, settler, and railroad manager alike.

Expediency marked much of this land-disposal policy, more than the managers themselves cared to admit. Aided by nebulous congressional land grant legislation and erratic administrative control, railroads had a wide latitude in the administration of the disposal of land.[42] Under tissue paper-thin restraints, railroads adopted land policies that irritated the very market they were so assiduously trying to cultivate. Favoring large sales over smaller ones, selecting strategic parcels for patenting land, holding other huge territories off the market and then transferring land before they had clear title—all these made railroad land departments targets of settlers' animosity.

It must be conceded that if railroad managers were not politically astute, they did formulate their policies under a hazy rationale, reasonable or not. From the standpoint of

traffic in a virgin area, it made sense to settle the country as rapidly as possible; land departments in the beginning felt that selling large sections promoted this policy. They were to switch their tactics later when they learned that selling to large speculators failed to produce substantial freight revenues. Further, land departments became dismayed at the enormous rash of feeder-line building by competing companies. Many land department managers viewed the line's holdings economically worthwhile only in the dim, distant future.

As we have observed, railroads in the Rocky Mountain West which were politically aggressive received an endless stream of favorable tax legislation from the beneficence of their state legislators. But not all the state capitols were ground under the wheels of the railroad political machines. Hal Williams persuasively relates in his revisionist interpretation of the Southern Pacific in California that Huntington and his crowd were extremely sensitive to their vulnerability on a state and federal subsidy level.[43] Further, he states that the Southern Pacific officialdom entered politics only with the utmost reluctance, continuing to fear regulation, unknown or recognized. However, once in the political seas, they found the water fine, if treacherous, proceeding very quickly to become entangled in the political undercurrent always present on the Pacific Coast.

In Wyoming, the Union Pacific's legendary sway over local politicos has been found to have been highly exaggerated.[44] Although it is difficult to escape the suggestion that backdoor influence did exist, the only proof is that little legislation ever crossed the governor's desk which was detrimental to the Union Pacific's interest. Montana, always a state fraught with plentiful political cross fire, presented a unique case of the clash of state economic interest with railroad hegemony. It took a decision of the supreme court to test the validity of mineral rights of the Northern Pacific land grant to free the immense mineral holdings of the railroad for exploitation. Thomas Clinch wrote: "The Northern Pacific became the bête noire of Montanans, including her Populists,

because it threatened the mineral lands, the basis of her principal industry—mining."[45] In Montana up-and-coming politicians quickly learned that mineral extraction shoved all other competing economic concerns to second place.

Given the lucrative federal dowry, the speculations of the "opportunistic" investors, and the economic primitivism of the undeveloped West, was the social cost of railroads[46] to the nation exorbitant or reasonable? Until relatively recently, the Populist rantings against railroad profits prevailed as the predominant interpretation. The railroad official was seen as a graven image, à la Thomas Nast, with a bloated abdomen, and a toothy, malevolent grin on a bewhiskered countenance. Historians have suffered right along with Charles Francis Adams when he scribbled in his diary on November 26, 1890, "Today ceased to be Pres't of Union Pacific and so ended my life of railroad work . . . Gould, Sage, and the pirate band were scrambling on deck at 10."[47]

A revisionist mood, due in part to the econometricians, has thrived at the past decade. Robert Fogel's econometric scale, balancing "reasonable" returns against the risk of the Union Pacific promoters, registered the profits as a conservative $11,100,000, but the actual dividends were between $13,000,000 and $16,500,000.[48] To Fogel this did not appear to be an unseemly lavish reward for the size of the gamble. Of more than passing interest is that sixty years before Fogel, Henry Kirke White estimated the Union Pacific promoters' profits at $16,710,432.82, a conclusion he reached without the assistance of econometric puzzling.[49]

In his study of the transcontinental railway systems,[50] Julius Grodinsky persistently maintained that the capitalist's dividends were "slight" in relation to the public benefits. Likewise, Carter Goodrich argued not only that government subsidies were highly essential to railroad construction, but that without them private-venture capital would not have assumed the risks.[51] In effect, Goodrich appears to be saying that the amount of dividends is really beside the point—there simply would have been no railroads sans governmental support. In a fine analysis of the Kansas Pacific, the author

uncovered a story of "almost unrelieved greed, corruption and deceit." Yet he suggests that until we have far more financial data (for example, the value of first-mortgage bonds) our estimate of profits will remain no more than flimsy conjectures.[52] A meticulous scrutiny of the Central Pacific's accounts produced the conclusion that from the vantage point of social return, society benefited from the birth of the child of Crocker and associates.[53]

Whether the investor gouged society or only consumed his just desserts, we have plenty of testimony of investors' reluctance to subscribe to transcontinental railway bonds, particularly in the absence of a governmental handout. The private sector was simply unwilling or unable to assume the heavy wager involved in sending a transcontinental railroad across an uninhabited land. An analogy to the railroad investor was the irrigation promoter at the twilight of the nineteenth century.[54] Here again is an example of a private investor failing miserably in either planning a systematic water-resource system or attracting the requisite capital to construct it. Finally, the contention that we need more precise data on bonds, information on mortgage rates, and more investigation of the minor swings of the market is clearly merited. Otherwise our conclusions will remain in the realm of the occult.

The advent of the railroads in the West sparked a booster spirit which fused with urban concentration. For regardless of whatever other guise the railroads had appeared in to the Westerner, after they arrived railroads were quickly labeled as agents of colonial commercialism. Ambiguously, however, the Westerner never fully and consistently made up his mind about the railroads as oppressors or as redeemers. Mixed with this psyche of economic insecurity was the Westerner's total commitment to progress and presentism. Then as now, the urban communities of the West underwent rapid transformation, with their residents only semiconsciously aware of these changes. The constant expectation of change did not translate into an understanding or at times even a realization of the process of transformation. The Western urbanites knew that tomorrow would be bright, more often than not; they

did not understand how this genielike conversion would take place.

Theses on urbanization abound.[55] Depending on the analysis of development, function, and specialization, one has at hand a carousel of explanation of the origin of Western cities. Cooley's long-ago proposition that "population and wealth tend to collect wherever there is a break in transportation"[56] is as pertinent as any current exposition of the rise of cattle towns and industrial centers. Others have contended that cities do not require a unique factor but that location per se determined the life and death of a town. These "central-place" or "nodal" advocates postulate that whenever an accessible point is found where a "cluster of service functions" can offer a maximum of profit to a hinterland area, on that spot a city will originate.[57] Whether one adopts or discards the central-place scheme, cities do quickly perform variegated services for their residents, as well as for the inhabitants of the adjacent land.

In his classic essay of thirty years ago, Mark Jefferson described the ecological relation of cities to their adjacent undeveloped areas, along with their pecking order dominance to other sister communities.[58] Jefferson extended his "Law of the Primate City" to a Darwinian relationship between cities. In effect, he saw a gradation among cities where the largest urban center in a region grew to two or three times the size of the next largest city and so on down the scale. Jefferson then added an extremely useful, though consistently ignored, adjunct to the primacy of size, namely the primacy of chronology, that the first city in any undeveloped area quickly siphoned off inhabitants from all other cities of the nation, thereby reproducing their culture in the new region. While most social scientists have missed this corollary to Jefferson's thesis, one historian has interpreted the migration of small towns in terms of Puritan teleology, of "simply a congregation produced by fission from an old community."[59]

Whatever urban explanation appears most plausible, it is hardly revolutionary to find that Western towns did pattern

their social development on Eastern communities where their citizens so recently resided.[60] Functionally, Western towns in the Gilded Age, with the exception of the primate cities of the size of Seattle, Denver, or Omaha, remained solely centers of commercial and financial services. Only with economic maturity did Western towns become specialized enough to have substantial industrialization. By our consistent habit of coupling industrialization and urbanization, we have a tendency to dismiss the stages in urban growth. For industrialization to take hold, Western cities required—along with a specialization of market and services—political, social, and cultural innovations commonly absent, or at best in a pupal stage, in towns in undeveloped areas.

Once urbanization took hold in the West, town planning was most notable by its absence.[61] Speculation, impatience, tastelessness, and lack of foresight were distinguishing hallmarks of the "typical" Western community. For every Colorado Springs, whose promoters, although patently speculators, had some degree of élan in their urban projections, there were dozens of Leadvilles, Pierres, Buttes, or Glasgows, where the motivation remained solely economic, devoid of aesthetics. Still, when a founding father of the stripe of William Jackson Palmer or James J. Hagerman did devise a plan for real estate development, he turned with inevitability to the New England town or Spanish pueblo plat. Only at the end of the century, with the intensification of agriculture and the irrigated community, does one uncover any creativity in town design; then the leadership was more often than not theocratic, utopian, or governmental, not entrepreneurial.

In social structure, class orientation, and governmental organization, Western towns, as Western society, were again more imitative of the East than innovative. In his path-breaking essay on the social climate of two Western cities, Gunther Barth measured the "tone" and "style" of the emergent communities of Denver and San Francisco against those of the "great cities."[62] In San Francisco, Barth found that when residential owners opposed individual developers or speculators over the allocation of urban land, the latter triumphed. The elite of San Francisco, with a heavy commitment to egalitarianism made possible by the influx of newcomers, demonstrated the enthusiasm of other Wests for boomerism. San Francisco civic leaders were infected with the expectation of "future economic booms and incoming multitudes." As in San Francisco, Denver's "thirty-six" shifted from the more static commercialism of the city's founding fathers to an interest in industry with the emerging eighties.

The men of mark of Denver and San Francisco regarded their cities as prophecy. The future course of the Queen City of the Plains might be the subject of endless, caustic debates, but to have questioned that their city had a future would have been treasonous. Other Western communities with a less diversified economic base possessed hopes as strong but with less reason. As these towns thrashed about in one direction and then another seeking escape from their monolithic dependence, their faith in themselves and their communities waned. As maturity came and wholesale boosterism declined, a psychological letdown backwashed over many communities, although not many communities wanted to admit to this atmosphere of despair. The appearance of the railroad became a major factor in this fading spirit. Editors and community leaders whipped up their citizenry's kinetic promotionalism to a high pitch to pass the railroad bond issues. Kansas City city fathers even went to the ultimate in unity by passing a moratorium on factional politics during their courtship of prospective railroad officials.[63] The railroads came, the economy spiraled for a brief moment and leveled off, and complacency yielded to outright pessimism with the exhaustion of the natural resources or the erosion of urban commercialism. Many a cattle town or mining community discovered to its chagrin the hazards of forecasting its future by the whims of the cattle trade or the dull-colored veins of a seemingly inexhaustible mine.

During the period of optimism, Western towns evolved a culture and society which never ceased to amaze the visiting Eastern tourist.[64] (Today the tourists' grandsons continue to

express the same degree of amazement.) Owen Wister, one of the more quotable Easterners, was overcome by the representations of the East's culture on the Western facade which he found on his Western grand tours. Visiting Omaha on the way west in 1885, he hurriedly jotted in his diary, "Curious to come here and find people who know all about New Bedford and Milton, and to see a photograph of the Hon. Pierpont Morgan in a rack on the wall."[65] Wister enjoyed the entire spectrum of Western society, from hunting trips with the natives through evening campfire chants with the cowhands to the companionship of the Cheyenne "40" along Carey Avenue. One suspects that he was more comfortable in the domicile of a cattle king than in that of a cowboy; nevertheless, his fellow Philadelphians might have understood more of what they saw in the West had they followed his catholic social taste.

Equalitarianism did represent the temper of many Western cities in their adolescence, but the one-for-all-and-all-for-one spirit has been a myth much longer than it ever was a fact. As soon as possible a class, not a classless, society came into being in Western communities. Admittedly, the demarcation may not have hardened as rigidly as in Tuxedo Park or along the Main Line; nonetheless, caste imprints appeared with a startling quickness. In Cheyenne, just twenty years after the first lonely railroad engine whistled into town, one local commentator expressed a sensitivity to a "self-styled better element," which was drawing the reins of "exclusiveness."[66] Again this should not require studied explanation; in Sheboygan, Cleveland, or Jamestown one did not rub elbows with the indiscriminate "masses," especially the type of transient flotsam that passed through Western communities.

Along with a lamination of society came a stratification of culture; Eastern relatives were writing home with boresome frequency about the miracle of seeing Edwin Booth in the Tabor Opera House in Leadville. Fashionable clubs, serving excellent cuisines washed down with draughts of fine wines, originated wherever clusters of affluent homesick Easterners gathered. Vigorous sports, such as polo, or polite Sunday

afternoon pastimes, such as croquet, became as popular in the West as they were in the East. Lyceums, literary societies, and twice-a-Sunday church services had their Western reproductions.

Wickets and billiards aside, Western cities through their merchant capitalists made pivotal contributions to continental commercialism. As brokers between the Eastern wholesaler-banker and the Western customer, the Charles Ilfelds of New Mexico,[67] the Francis E. Warrens of Wyoming, and the John Conrads of Montana held sway over a vast, if not populous, domain. As a bridge between economic primitivism and a maturing economy, the merchant-capitalist assumed a strategic place in Western society. As linchpin in this import-export society, he was not displaced for decades, and in isolated parts of the West today his likeness hangs on.

As society whirled and business boomed, a rudimentary local government took root. Adopting their legal systems from what they had known previously, Westerners were quick to learn from the experience of neighboring communities, which might be all of a decade older. Again most in evidence was the caste, not the classlessness, for in urban decision making, politics focused on the same fraternal associations who "traveled together" in society and business. Any other habit then or today would require explanation.

As the cities and the West grew older together, a more realistic evaluation settled like dust over many communities. A town boomer, who envisioned his "city" as possessing a Chicago-like skyline in the seventies, was willing in the nineties to settle for a simple existence as his town's place in the sun. Having contested the economic primacy of other regional cities, communities soon located their area of spatial dominance. The merchant-capitalist and politico, Francis E. Warren, wrote a friend in Green River, Wyoming: "We can compete with success against Denver houses; Omaha people though will remain our heaviest competition."[68] The psychological and ecological urban adjustment whereby Santa Fe eventually realized that it would never rival Denver or even Albuquerque did not, of course, mean a loss of urban "char-

acter." With much of their boosterism evaporated, cities retained a homogeneity of social functions, each in its own way, with its own time and place. The natural resource-based communities—company towns such as Bisbee, Arizona, or Ouray, Colorado—have increasingly received attention as the harbingers of urbanization in the West. As the glint which attracted many an investor's attention, it would be difficult to exaggerate the role of the mining industry.[69] Slowly Easterners foreign to Western ways discovered that the dividends in mining came much faster to those who bought mining stock, though there was no singularity to this pattern, as most Eastern investors in cattle or transportation could have related.

Never entirely absent, rampant speculation slowed down as mining engineers became more and more relied upon to guide their investors' inclinations. In fact, some engineers, such as John Hays Hammond or Pope Yeatman, had such magical reputations that the presence of their names on a manuscript geological report automatically floated the proposed scheme. Mining engineers, often scoffed at as charlatans, gained more and more stature as investors grew wiser. John Farish, one of the more active and prominent engineers in the Rockies, could write to one of his main backers, Isaac Ellwood, that "many of those who scorned my reports a few years ago now find my sentences invaluable."[70]

Technology and transportation spelled the success or failure of many a mining enterprise. Rodman Paul, in his able examination of mining technology in Colorado, found that the Centennial State was a veritable laboratory for the application of European and locally devised solutions to technological problems.[71] Time and again in the nineteenth century, the West brought out the talents of a whole generation of engineers to solve the technologically insoluble—evidence the genius at work of Daniel Jackling at Bingham, James Douglas and Lewis Rickets at Bisbee, and Ira Joralemon at the United Verde Extension.

As the mining West matured with other Wests, professionalization and specialization set the tone and predominant

style for mining managements. Substantial capital input demanded sophisticated management and the narrowing of investment risk. In ratio to the decline of ore-rich bodies, the expenses rose proportionately to extract lower-grade ore. No longer did a few thousand dollars suffice to bring in profits; hundreds of thousands and even millions of venture capital became necessary. Labor's demands, for the first time consistently organized with success in the 1890s, presented a political and economic force which could not be snuffed out as in the past.

Mining towns, which had adopted codes and laws from almost the turn of the first shovelful, more and more surrendered to a veneer of civilization—one hesitates to say culture—of life as the inhabitants had known it in the East. One wonders if these surface manifestations of law, order, and society were not in part economically motivated. After all, potential investors in a mining prospect became rather difficult to sell on communities where labor and vigilante upheaval was reputed as the predominant societal expression.

Along with urbanization, whatever its economic base, agricultural settlement grew apace.[72] One of the most extraordinary features of the growth of the agricultural hinterland was its amazing swiftness. Railroads, good and cheap land, and, above all, the unceasing din of promotional agents convinced hundreds of immigrants, both foreign and native, that a beautiful rainbow shimmered at the end of a long, straight furrow. Little analysis has been devoted to why agricultural promotion mesmerized so many for so long. Perhaps this is because the answer is so evident. Would-be settlers wanted desperately to believe in the indoctrination they heard—namely, that the golden dream was not a dream but a reality. So all the ballyhoo of the immigrant agent, whether on behalf of a railroad or of territorial agencies, quickly became absorbed. Life and struggle were so closely equated in most farmers' lives that it was difficult not to believe that far-off Dakota or western Kansas held more promise than the scene of their present frustrations.[73]

The rapid agricultural migration, whether realized or not,

moved within institutional controls. Transportation, ethnic clustering, quality of land, proximity to an older established settlement, financial assistance—all served as directional channels for flow of population.

Once on the land, the farmer demonstrated remarkable speed towards assimilating new techniques and skills. The transfer agents that introduced these fresh innovations also provided the farmer with his implements and seed or served as his railroad freight agent, or, more rarely, the farmer might exploit ideas that he absorbed from the farm newspaper. Contrary to the agrarian image of agricultural conservatism, whenever the farmer located an idea, he evidenced every imaginable trait of progressivism when it came to the possibility of increasing his income.[74] The very social fragmentation of their society tended to make the farmers more receptive to the transfer of innovative ideas.

Lured by the land or seduced by the promotional agent, the farmers that fanned out through the prairie across the hundredth meridian first sowed a crop that promised immediate rewards. As fast as they could tear up the soil, the Dakota boomers planted thousands of acres of wheat and, until they learned better, the immigrants in western Nebraska, eastern Colorado, and Kansas tried corn. Dependence on a single crop was extremely hazardous, as many farmers learned to their sorrow. In financing their optimism, farmers could borrow for short terms from a local merchant-capitalist, the farm implement dealer, or the community banker. For longer obligations he turned eastward toward the insurance company or a private investor in farm mortgages. As Allan Bogue noted several years ago, the farmer first borrowed to alleviate the distress of the depressions and recessions; then, in the eighties, many farmers became speculators in miniature by acquiring neighboring farms or adding acreage to their own land.[75]

Eastern and foreign speculators in turn appeared to be as eager to lend as borrowers were to receive. Depending on the region and the year, Eastern financiers could anticipate six to ten per cent interest in the eighties, and slightly lower returns

in the nineties.[76] Through the latter half of the nineteenth century, returns on land averaged approximately two per cent higher than on railroad bonds, although Eastern capitalists did not necessarily regard the comparison as a reassuring one. Furthermore, land had visibility; it did not have the proclivity of suddenly disappearing as so many railroad stocks did in the spasms of corporate reshuffling. Western land was popular simply because most investors considered it a safe place for their capital, unaware as they were of droughts, erosion, and marketing problems. In times of national upheavals, contractions, and reduced interest rates, lenders sought the elusive security that the promise of land had a semblance of giving—all culminating in more speculation by both lender and borrower.

The Eastern investor did not reap all his returns in interest rates, however; he long occupied an unenviable pinnacle in the mythology of protest. Damned as an exploiter, the speculator from New York received a barrage of epithets. The "honyocker" claimed the speculator retarded settlement by holding his land off the market in anticipation of greater profits. Research in recent years has sharply altered this Simon Legree view of speculators and their social cost, though. One historian goes so far as to insist that there is no supporting evidence that the speculator held up settlement; in fact, he probably promoted it.[77]

No musing in metaphysics is necessary to realize that the Eastern investor, whatever the supposed degree of social cost, provided Western financial institutions with the capital reserve essential for development. Financial input had to come from somewhere. The East had the financial surplus, the West the natural wealth. The merging of these two components in the late nineteenth century is what the history of the West is all about.

The farmer operated under far more of a hazard than the machinations of the financial overlord on Wall Street. Optimism created psychological blind spots. Stubbornly refusing to recognize the cyclical value of his market, the farmer hung on at a subsistence level, thereby subsidizing the nonfarming

sectors of the economy. His tenaciousness expressed itself in a remarkable way that until recently has been largely ignored. The conventional interpretation had the farmers moving to and leaving from the West in a series of pendulum pushes.[78] According to the pendulum theory, a series of bumper crops and high prices enticed the settlers past the hundredth meridian; then, when drought struck, producing a meager living, hordes of settlers retreated to their former haunts in the East. A return of the affluent years started the process all over again. Investigation at the county and local level in the Great Plains economy has radically remolded this traditional view. Instead of the farmers moving west in oscillating swings, migratory habits of the settlers could be more accurately described by the term "ratchet." When farmers moved on to the Great Plains, they pressed just as rapidly as they could until they reached the Western limit of profitability. Then further expansion awaited new technological inventiveness, which came with mechanization, improved seeds, and sometimes irrigation. In spite of all the pagination to the contrary, federal land laws had little to do with profitability of farming in the eighties and nineties; the family farm acreage was sharply circumscribed by technology to an optimum of two to three hundred acres.

Once settlement of a county had started, the exodus of population could be quite rapid during the first five years after the initial migration push. However, the proportional ratio of those leaving during the depression was not immeasurably higher than in periods of prosperity. The immigration admittedly was greater during boom eras than during depression years. If he could endure five years, a farmer usually stayed, even though his persistence meant that he and his neighbors underwrote the prosperity of the rest of the economy. Perhaps with our preoccupation with Populism and protest, we have missed a major contribution of Western agriculture to the nineteenth-century economy. One can with relative ease construct a model for the theory that the general economic growth of the nineteenth century depended on constricted growth of agriculture. We may be grateful to the

farmer that he missed some of the market and technological possibilities and refused to rationalize his market to the demand.

By limiting our consideration of Western economic history to those spheres where public policy and private interest enmesh, we quickly admit a sensitivity to those mammoth hiatuses which we have slighted.[79] Federal military outlays in the West represented a subsidy that every congressional delegation assiduously wooed and jealously guarded. Many Western congressmen brought smiles to their constituents' faces when the latter heard reports of speeches in Congress on the bloodcurdling menace of the aborigine in the West. Rumors of Indian attacks were highly prized as a defense against losing a particularly well-financed military post. The issues of tariff and money, so important to the understanding of national and Western politics and economics, are beyond the scope of this essay. Anyone anticipating even partially fathoming the history of the West will have to immerse himself in the intricacies of these subjects.

Nor have we suggested a monolithic, all-encompassing interpretation of the West analogous to the Turner thesis. In a perceptive article Harry Scheiber ascribes much of the predicament of Western history to the lack of a "unifying framework." Scheiber does see the settlement and "community building" experience in the West as crucial to the mastery of the significance of the West. He proposes: "To understand the dynamics and national impact of community-building ventures, systematic comparative studies must be undertaken by scholars who share a commitment to a fundamental reorientation of the field."[80]

Where are the Turners of today, with their horizon-sweeping theses, whereby all complexities appear to fall neatly into an intelligible pattern? We would propose that we know both too little and too much of the history of the West to be long ensnared by the simplicity of an all-embracing explanation.[81] In the immediate past there have been examples of attempts at providing that magic passport to deciphering some enigmatic phase of Western history. These

flashes of brilliance have had unusually short lives, being snuffed out by some studious researcher who has produced a monograph challenging the thesis with long regimental rows of question marks.[82] We simply cannot chart closely enough the terrain of Western history to be won over by Turner-like hypotheses.

However, in the above flicker-image projections, we have offered a few themes which, it is proposed, deserve exploration and, taken together, may provide us with a measure of that elusive overarching theoretical framework. Within the context of the national economic-political milieu, several propositions provide a foundation for regional analysis. The more we investigate the economy of the nineteenth century, the more it becomes evident that no national economy existed as such, but only regional economies.[83] Second, the economy of the Gilded Age was akin to the Model T; it progressed by fits and starts. Third, many of the most dynamic indicators in regional economics are beyond the pale of historical recovery; they appeared, dominated for a brief time, and then vanished without a trace. Fourth, the federalism in the nineteenth century was, in essence, decentralization of federal-state relationships. There was a Balkanization in the interaction between the states and the nation in both politics and economics. Fifth, for all the epithets of immorality, it was an age that could think in moral terms; how else can one explain much of the furor surrounding the monetary controversy, for never were there so many irrational economic panaceas propounded.

Against this national background, the Westerner sought, usually by trial and error, his preordained star. As he had done in the East, the Westerner committed himself to the creed of increasing productivity when he moved westward. This pledge, in view of the magnitude of natural wealth around him, seemed eminently sensible. A more vaporous philosophy was his enthusiasm for economic activity for the sake of activity.

Psychologically, he evidenced a freewheeling optimism, a booster enthusiasm that belied his insecurity. But this optimism generated an economic force that was manifested in several forms. Towns provided reams of charters to sanction businesses,[84] voted bond issues to subsidize these firms, and then later began to regulate them. What has been missed about this regulatory effort is that it was more directed at protecting the public treasury than chastising corporate abuses. A striking commentary on this boosterism came through urban promotion, where the city fathers visualized their community on a global path of commerce and imbibed heavily of the theories of William Gilpin.[85] Amazingly, little embarrassment occurred over chartering a railroad with the startling name of *Laramie, Hahns Peak and Pacific,* whose western terminus remained a thousand miles from the Pacific for all time.

Yet the Westerner's destiny was not as manifest as he would have liked his age to believe. It is difficult to escape the inference that the Westerner had an underlying spirit of insecurity, for he knew his reality remained only as concrete as his dreams. He soon discovered that laissez faire in the West as in the East was a non sequitur. The immense natural wealth around him stayed beyond his reach, unless he imported capital, technology, and organizational know-how.

A concluding note on the tone and style of the nineteenth-century West: Vernon Parrington, whiffing the incense of Populism, maintained that the history of the Gilded Age should be characterized as the Great Barbecue.[86] As a more appropriate metaphor, we would suggest the appellation of the Casino le Grand, for seldom have Americans gambled for proportionately higher stakes than they did in the West of the post–Civil War. Whether the Westerner was an agrarian, capitalist, or community promoter, speculation was his way of life. With the American's hold on the present and his faith in the future, the gaming spirit was easily acquired and seldom lost.

Notes

1. *Cheyenne Sun*, 8 March 1878.
2. *Cheyenne Leader-Sun*, 24 November 1900.
3. Rendigs Fels, *American Business Cycles, 1865-1897* (Chapel Hill: University of North Carolina, 1959).
4. The literature on the West, both in manuscript and in print, is crammed with references to colonialism. Those dealing directly with colonial expression are: Abraham G. Mezerik, *The Revolt of the South and West* (New York: Duel, Sloan and Pearce, 1946); Wendell Berge, *Economic Freedom for the West* (Lincoln: University of Nebraska, 1946); Walter P. Webb, *Divided We Stand* (New York: Farrar and Rinehart, 1937); Bernard De Voto, "The West: A Plundered Province," *Harper's*, 169 (August 1934): 355-64; and Gene M. Gressley, "Colonialism: A Western Complaint," *Pacific Northwest Quarterly*, 64 (January 1963): 1-8.
5. Over the past two decades, the ill-fated Populist revolt has attracted an astounding amount of attention. Anyone within fifteen minutes in front of a library card catalog can reconstruct a bibliography on Populism. Two unpublished dissertations of merit are: Thomas A. Clinch, "Urban Populism and Free Silver in Montana" (Eugene: University of Oregon, 1964), and David B. Griffth, "Populism in the Far West" (Seattle: University of Washington, 1967). A different slant on the class origins of the Populists is discussed in Stanley B. Parsons, "Who Were the Nebraska Populists?" *Nebraska History*, 44 (June 1963): 83-99.
6. Williard Hurst has written a series of provocative and exciting treatises on legal institutions and economic growth. See *Law and Economic Growth* (Cambridge: Harvard University, 1964); *Law and the Social Process in United States History* (Ann Arbor: University of Michigan, 1960); *Law and the Conditions of Freedom* (Ann Arbor: University of Michigan, 1956); *The Growth of American Law and the Law Makers* (Boston: Little, Brown, 1950). Harry N. Scheiber has provided a perceptive and acute analysis of Hurst in "At the Borderland of Law and Economic History: The Contributions of Willard Hurst," *American Historical Review*, 75 (February 1970): 744-756; and "The Road to Munn: Eminent Domain and the Concept of Public Purpose in the State Courts," *Perspectives in American History*, 5 (1971): 329-402. Relevant, though less helpful, is David H. Flatery, "An Approach to American History: Willard Hurst as Legal Historian," *The American*

Journal of Legal History, 14 (August 1970): 22-234.

7. G. Herberton Evans, Jr., *Business Incorporations in the United States, 1800-1943* (Baltimore: National Bureau of Economic Research, 1948), p. 31.
8. Edward Bellamy, *Looking Backward* (Hollywood: Limited Editions Club, 1941), p. 54.
9. Allan Jones, "Thomas Cooley and the Michigan Supreme Court, 1865-1885," *The American Journal of Legal History*, 10 (April 1966): 97-121.
10. Frederick L. Allen, *The Great Pierpont Morgan* (New York: Harper's, 1949); Fritz Redlich, *The Molding of American Banking: Men and Ideas, Part II, 1840-1910* (New York: Hafner, 1951); Edward C. Kirkland, *Industry Comes of Age* (New York: Holt, Rinehart and Winston, 1961).
11. Leo Marx, *The Machine in the Garden* (New York: Oxford, 1964), pp. 73-144.
12. Some of the most able historiography on the West is on the subject of territories. Worthy examples are: Earl S. Pomeroy, *The Territories and the United States, 1861-1890* (Philadelphia: University of Pennsylvania, 1947); Leonard J. Arrington, *Great Basin Kingdom* (Cambridge: Harvard University Press, 1958); Howard Lamar, *The Far Southwest, 1846-1912* (New Haven: Yale University, 1966); Lamar, *Dakota Territory* (New Haven: Yale University, 1956); Lewis L. Gould, *Wyoming, A Political History, 1868-1896* (New Haven: Yale University, 1968); and Robert W. Larson, *New Mexico's Quest for Statehood, 1846-1912* (Albuquerque: University of New Mexico, 1968).
13. In addition to the territorial histories above, information on the structure of various "rings" appears in a number of volumes, for example: William Keleher, *Violence in Lincoln County, 1869-1881* (Albuquerque: University of New Mexico, 1957); Frederick Nolan, *The Life and Death of John Henry Tunstall* (Albuquerque: University of New Mexico, 1965); H. B. Hening, ed., *George Curry, 1861-1947* (Albuquerque: University of New Mexico, 1958); Herbert T. Hoover, "History of the Republican Party in New Mexico, 1867-1952" (Albuquerque: Ph.D. diss., University of New Mexico, 1966); Ronald H. Limbaugh, "The Idaho Spoilsmen: Federal Administrators and Territorial Politics, 1863-1890" (Moscow: Ph.D. diss., University of Idaho, 1967); Thomas G. Alexander, "Mason Brayman and the Boise Ring," *Idaho Yesterdays*, 14 (Fall 1970): 21-27; Joseph Kinsey Howard, *Montana: High, Wide, and Handsome* (New Haven: Yale University, 1943); and K. Ross Toole, *Montana: An Uncommon Land* (Norman: University of Oklahoma, 1959). In using the latter volume it is suggested that readers first consult Richard T. Ruetten, "Review of *Montana: An Uncommon Land*," *Wisconsin Magazine of History*, 43 (Winter 1959-60): 136-37.
14. H. Wayne Morgan, in his impressive tome *From Hayes to McKinley, National Party Politics, 1877-1896* (Syracuse: Syracuse University, 1969), comments on the alternations in personal, factional, and committee leadership in Congress. A somewhat different approach is in David Rothman, *Politics and Power* (New York: Columbia University, 1966). For a 180-degree turn from Rothman, Robert Marcus offers a striking interpretation in *Grand Old Party: Political Structure in the Gilded Age, 1880-1896* (New York: Oxford University Press, 1971). A balanced, thoughtful treatment of the era can be found in John A. Garraty, *The New Commonwealth, 1877-1890* (New York: Harper and Row, 1968).
15. Harold Roberts, *Salt Creek* (Denver: Kistler's, 1956); Oliver Shoup, "When Salt Creek Roared," Midwest Oil Corporation Collection, Petroleum History and Research Center, University of Wyoming, Laramie; Marshall Sprague, *Newport in the Rockies* (Denver: Sage, 1961).
16. "Commonwealth Mine Letterbook," D. M. Barringer Collection, Firestone Library, Princeton University, Princeton; Helen R. Fairbanks and Charles P. Berkey, *Life and Letters of R. A. F. Penrose, Jr.* (New York: Geological Society of America, 1952), pp. 193-209.
17. John P. Jones to Mrs. J. P. Jones, 8 September 1898. John P. Jones Collection, Huntington Library, San Marino, California.
18. William Stewart to J. L. Devin, 2 December 1889, William Stewart Papers, Huntington Library, San Marino, California.
19. William Lilley II, "The Early Career of Francis G. Newlands, 1848-1897" (New Haven: Ph.D. diss., Yale University, 1965).
20. James Bryce, *The American Commonwealth* (New York: Macmillan, 1891), 2:301.
21. Though verbose and in need of a good sharp editorial pruning, a valuable work on constitutional foundations of the territories is J. W. Smurr, "Territorial Constitutions: A Legal History of the Frontier Government Erected by Congress in the American West, 1787-1900" (Bloomington: Ph.D. diss., Indiana University, 1960).
22. Earl S. Pomeroy, *The Territories and the United States, 1861-1890* (Philadelphia: University of Pennsylvania, 1947). In some cases, congressional supremacy appears to have become a stumbling block in dealing with problems caused by the nature of the public domain, territorial governments, and Indian affairs. See Thomas G. Alexander, "The Federal Frontier: Interior Department Financial Policy in Idaho, Utah, and Arizona, 1863-1896" (Berkeley: Ph.D. diss., University of California, 1965).
23. Gerald D. Nash, *State Government and Economic Development*

(Berkeley: University of California, 1964).

24. Hoover, "History of the Republican Party in New Mexico 1867-1952."
25. Merrill Burlingame and K. Ross Toole, *A History of Montana*, 3 vols. (New York: Lewis Historical Publishing Company, 1957) 1:263.
26. Leslie E. Decker, *Railroads, Lands and Politics* (Providence: Brown University, 1964).
27. Kenneth M. Hammer, "Dakota Railroads" (Brookings: Ph.D. diss. South Dakota State University, 1965), p. 445.
28. Ibid., p. 432.
29. Paul Gates, Allan Bogue, and others associated with the Gates Bogue "school" have produced a series of extremely fine monographs on public land policy, the public domain, and speculation. Among those of pertinence to the above comments are: Paul W. Gates, *History of the Public Land Law Development* (Washington: Government Printing Office, 1968); Allan G. Bogue, *Money at Interest* (Ithaca: Cornell University, 1955); Allan G. and Margaret Bogue, " 'Profits' and the Frontier Land Speculator," *Journal of Economic History*, 18 (March 1957): 1-24; Leslie Decker, *Railroads, Lands, and Politics* (Providence: Brown University, 1964); Thomas T. LeDuc, "Public Policy, Private Investment and Land Use in American Agriculture, 1825-1875," *Agricultural History*, 37 (January 1963): 3-9; Robert P. Swierenga, *Pioneers and Profits* (Ames: Iowa State University, 1968); Gates, "From Individualism to Collectivism in American Land Policy," in *Liberalism, as a Force in History: Lectures on Aspects of the Liberal Tradition* (New London: Connecticut College for Women, 1953).

    Other sources, outside the Gates-Bogue group but constantly thumbed by those working through the labyrinth of land policy, are: Roy M. Robbins, *Our Landed Heritage: The Public Domain, 1776-1936* (Princeton: Princeton University, 1942); Marion Clawson and B. R. Held, *The Federal Lands: Their Use and Management* (Baltimore: Johns Hopkins University, 1957); Harold H. Dunham, *Government Handout, A Study in the Administration of the Public Lands, 1875-1891* (Ann Arbor: Edwards Bros., 1941); James C. Malin, *The Grassland in North America: A Prolegomenon to Its History* (Lawrence: University of Kansas, 1947); E. Louise Peffer, *The Closing of the Public Domain: Disposal and Reservation Policies, 1900-1950* (Stanford: Stanford University, 1951); Vernon Carstensen, ed., *The Public Lands* (Madison: University of Wisconsin, 1963); and David M. Ellis, ed., Lee Benson, assoc. ed., et al., *Frontier in American Development: Essays in Honor of Paul Wallace Gates* (Ithaca: Cornell University Press, 1969).

30. Gates, *History of the Public Domain, 1776-1936* (Washington: Government Printing Office, 1968).
31. If an inundation of words could settle a dispute, the "new" economic history would be a dead issue. In a short space of less than a decade, the heat generated by this controversy has resulted in a lavalike flow of titles. A representative bibliography, but by no means complete, follows: Robert W. Fogel, *The Union Pacific Railroad: A Case in Premature Enterprise* (Baltimore: Johns Hopkins University, 1960); Fogel, *Railroads and American Economic Growth: Essays in Econometric History* (Baltimore: Johns Hopkins University, 1964); Albert Fishlow, *American Railroads and the Transformation of the Antebellum Economy* (Cambridge: Harvard University, 1965); Paul H. Cootner, "The Role of Railroads in United States Economic Growth," *Journal of Economic History*, 23 (December 1963): 417-52; Harry N. Scheiber, "On the New Economic History—and Its Limitations: A Review Essay," *Agricultural History*, 41 (October 1967): 383-95; Douglass C. North, *Growth and Welfare in the American Past* (Englewood Cliffs: Prentice-Hall, 1966); E. H. Hunt, "The New Economic History: Professor Fogel's Study of American Railways," *History*, 53 (February 1968): 3-18; Lance E. Davis and John Legler, "The Government in the American Economy, 1815-1902: A Quantitative Study," *Journal of Economic History*, 26 (December 1966): 514-51; Meghad Desai, "Some Issues in Econometric History," *Economic History Review*, 21 (April 1968): 1-16; Fogel, "The Reunification of Economic History with Economic Theory," *American Economic Review*, 15 (May 1965): 92-97; G. R. Hawke, "Mr. Hunt's Study of the Fogel Thesis: A Comment," *History*, 53 (February 1968): 18-23; Peter D. McClelland, "Railroads, American Economic Growth, and the New Economic History: A Critique," *Journal of Economic History*, 28 (March 1968): 102-23; Marc Nerlove, "Railroads and American Economic Growth," *Journal of Economic History*, 26 (March 1966): 107-15; Harold F. Williamson, "Business History and Economic History," *Journal of Economic History*, 26 (December 1966): 407-17; William N. Parker, "From Old to New to Old in Economic History," *Journal of Economic History*, 31 (March 1971): 15-42; Paul A. David, "Transport Innovation and Economic Growth: Professor Fogel on and off the Rails," *The Economic History Review*, 22 (December 1969): 506-25; Fogel, "Historiography and Retrospective Econometrics," *History and Theory*, 9, no. 3 (1970): 245-64; Albert Fishlow and Robert W. Fogel, "Quantitative Economic History: An Interim Evaluation, Past Trends and Present Tendencies," *Journal of Economic History*, 31 (March 1971): 15-42.

32. W. W. Rostow, *The Economics of Take-off into Sustained Growth* (New York: St. Martin's, 1963).
33. Cootner, "The Role of Railroads in United States Economic Growth."
34. Peter D. McClelland, "Railroads, American Economic Growth, and the New Economic History: A Critique," *Journal of Economic History*, 28 (March 1968): 106.
35. *Trends in the American Economy in the Nineteenth Century*, vol. 24 of *Studies in Income and Wealth*, Report of the National Bureau of Economic Research (Princeton: Princeton University Press, 1960).
36. The frequently referred-to volume by Thomas Cochran, *Railroad Leaders, 1845-1890* (Cambridge: Harvard University, 1953), is crammed with data on entrepreneurial personality and motivation.
37. Arthur M. Johnson and Barry E. Supple, *Boston Capitalists and Western Railroads* (Cambridge: Harvard University, 1967).
38. Judicious observations on amassing capital are at hand in: Richard C. Overton, *Burlington Route: A History of the Burlington Lines* (New York: Alfred A. Knopf, 1965); Alfred D. Chandler, Jr., *Henry Varnum Poor: Business Editor, Analyst, and Reformer* (Cambridge: Harvard University, 1956); and E. G. Campbell, *The Reorganization of the American Railroad System, 1893-1900* (New York: Columbia University, 1938).
39. Julius Grodinsky, *Jay Gould: His Business Career, 1867-1892* (Philadelphia: University of Pennsylvania, 1957), p. 514.
40. A summary of the place of Western land in the thought of railroad officials is in Julius Grodinsky, *Trans-Continental Railway Strategy, 1869-1893* (Philadelphia: University of Pennsylvania, 1962).
41. Julius Grodinsky, *The Iowa Pool* (Chicago: University of Chicago, 1950).
42. Decker, *Railroads, Lands, and Politics*, pp. 243-50; Carter Goodrich, *Government Promotion of American Canals and Railroads* (New York: Columbia University, 1960); William S. Greever, *Arid Domain: The Santa Fe Railway and Its Western Land Grant* (Stanford: Stanford University, 1954); James B. Hedges, *Henry Villard and the Railways of the Northwest* (New Haven: Yale University, 1930); Overton, *Burlington West;* Ross R. Cotroneo, "The History of the Northern Pacific Land Grant, 1900-1952" (Moscow: Ph.D. diss., University of Idaho, 1967).
43. R. Hal Williams, "Politics and Reform: The California Democrats in the Cleveland Years" (New Haven: Ph.D. diss., Yale University, 1968); Williams, " 'Dry Bones and Dead Language': The Democratic Party," in *The Gilded Age*, ed. by H. Wayne Morgan (Syracuse: Syracuse University Press, 1970), pp. 129-48.

44. Lewis L. Gould, *Wyoming: A Political History, 1868-1896* (New Haven: Yale University, 1968); Gould, "The Republican Search for a National Majority," in *The Gilded Age* (Syracuse: Syracuse University Press, 1970), pp. 171-98.
45. Thomas A. Clinch, *Urban Populism and Free Silver in Montana: A Narrative of Ideology in Political Action* (Missoula: University of Montana, 1970).
46. Lloyd J. Mercer argues convincingly that private investors in the Central Pacific expected the railroad to be unprofitable for an interim time, which in effect makes the matter of a social return a moot question. See Mercer, "The Central Pacific System: An Estimate of Social and Private Rates of Return for a Land-Grant Aided Railroad System" (Seattle: Ph.D. diss., University of Washington, 1967).
47. Edward C. Kirkland, *Charles F. Adams, Jr., 1835-1915* (Cambridge: Harvard University, 1965), p. 126.
48. Fogel, *The Union Pacific Railroad*, pp. 84-88.
49. Henry Kirke White, *History of the Union Pacific Railway* (Chicago: University of Chicago, 1895).
50. Grodinsky, *Trans-Continental Railway Strategy.*
51. Carter Goodrich, *Government Promotion of American Canals and Railroads, 1800-1890* (New York: Columbia University, 1960), p. 420.
52. William P. Petrowski, "The Kansas Pacific: A Study in Railroad Promotion" (Madison: Ph.D. diss., University of Wisconsin, 1966), pp. 242-43.
53. Mercer, "The Central Pacific System," p. 190.
54. William Lilley II and Lewis L. Gould, "The Western Irrigation Movement, 1878-1902: A Reappraisal," in *The American West: A Reorientation*, ed. by Gene M. Gressley (Laramie: University of Wyoming, 1966), pp. 57-74.
55. For a potpourri: Donald J. Bogue, *The Structure of the Metropolitan Community* (Ann Arbor: University of Michigan, 1949); Ray P. Cuzzort, *Suburbanization of Service Industries within Standard Metropolitan Areas* (New York: Oxford University, 1955); Robert E. Dickinson, *City, Region and Regionalism* (London: K. Paul, Trench, Trubner & Co., 1947); O. D. Duncan, Ray P. Cuzzort, and Beverly Duncan, *Statistical Geography* (Glencoe: Free Press, 1963); Harvey S. Perloff, Edgar S. Dunn, Eric E. Lampard, and Richard F. Muth, *Regions, Resources and Economic Growth* (Baltimore: Johns Hopkins University, 1960); Walter Isard, *Location and the Space Economy* (New York: Macmillan, 1956); Philip Hauser and Leo F. Schnore, *The Study of Urbanization* (New York: Wiley, 1965); Eric E. Lampard, "Dimensions of Urban History: A Footnote to the 'Urban Crisis'," *Pacific Historical*

Review, 39 (August 1970): 261-78; Gordon A. Craig, "The City and the Historian," *Canadian Journal of History*, 5 (March 1970): 47-55; H. J. Dyos, ed., *The Study of Urban History* (New York: St. Martin's Press, 1968); Stephan Thernstrom and Richard Sennett, *Nineteenth Century Cities: Essays in the New Urban History* (New Haven: Yale University Press, 1969); Ira Sharkansky, *Regionalism in American Politics* (New York: Bobbs-Merrill, 1970).

56. Charles H. Cooley, "The Theory of Transportation," reprinted in *Sociological Theory and Social Research* (New York: Henry Holt and Co., 1930), pp. 76-82.
57. Otis D. Duncan et al., *Metropolis and Region* (Baltimore: Johns Hopkins University, 1960), pp. 38-44.
58. Mark Jefferson, "The Law of the Primate City," *Geographical Review*, 29 (April 1939): 226-32.
59. Page Smith, *As a City upon a Hill* (New York: Alfred A. Knopf, 1966), p. 6.
60. Urbanism in the West has engaged historians' increasing attention. One of the more provocative works is Robert R. Dykstra, *The Cattle Towns* (New York: Alfred A. Knopf, 1968). Others of recent vintage include: Charles Glaab, *Kansas City and the Railroads* (Madison: State Historical Society of Wisconsin, 1962); Andrew T. Brown, *Frontier Community. Kansas City to 1870* (Columbia: University of Missouri, 1963); Marshall Sprague, *Newport in the Rockies* (Denver: Sage, 1961); Duane A. Smith, *Rocky Mountain Mining Camps* (Bloomington: Indiana University, 1967); James B. Allen, *The Company Town in the American West* (Norman: University of Oklahoma, 1966); Earl Pomeroy, "The Urban Frontier of the Far West," in *The Frontier Challenge: Responses to the Trans-Mississippi West*, ed. by John G. Clark (Lawrence: University Press of Kansas, 1971), pp. 7-30; Daniel J. Elazar, *Cities of the Prairie* (New York: Basic Books, 1970); Kenneth W. Wheeler, *To Wear a City's Crown: The Beginnings of Urban Growth in Texas, 1836-1865* (Cambridge: Harvard University Press, 1968); and Norman H. Clark, *Mill Town: A Social History of Everett, Washington, from Its Earliest Beginnings on the Shores of Puget Sound to the Tragic and Infamous Event Known as the Everett Massacre* (Seattle: University of Washington Press, 1970), a book as delightful and imaginative as the implausible—yea improbable—title.
61. John W. Reps, *The Making of Urban America* (Princeton: Princeton University, 1964).
62. Gunther Barth, "Metropolism and Urban Elites in the Far West," in *The Age of Industrialism in America*, ed. by Frederic C. Jaher (New York: Free Press, 1968), pp. 158-87.

63. Charles N. Glaab, *Kansas City and the Railroads* (Madison: State Historical Society of Wisconsin, 1962), p. 47.
64. Earl S. Pomeroy, *In Search of the Golden West* (New York: Alfred A. Knopf, 1957).
65. Owen Wister Diary, 2 July 1885. Owen Wister Collection, Western History Research Center, University of Wyoming, Laramie.
66. Quoted in Gilbert A. Stelter, "The Urban Frontier: A Western Case Study, Cheyenne, Wyoming. 1867-1887" (Edmonton: Ph.D. diss., University of Alberta, 1968). See also Asa Briggs, *Historians and Cities* (Sydney, Australia: University of Sydney, 1960).
67. A fine study almost alone in its field is William J. Parish, *The Charles Ilfeld Company* (Cambridge: Harvard University, 1961).
68. Francis E. Warren to Hiram Sapp, 8 August 1899. Francis E. Warren Collection, Western History Research Center, University of Wyoming, Laramie.
69. Some of the best writings on the American West are devoted to the mining industry. Among any bibliographical list would appear the following: Rodman Paul, *California Gold* (Cambridge: Harvard University, 1947); Clark C. Spence, *British Investment in the American Mining Frontier* (Ithaca: Cornell University, 1958); Paul, *Mining Frontiers of the Far West, 1848-1880* (New York: Holt, Rinehart and Winston, 1963); Grant H. Smith, *The History of the Comstock Lode, 1880-1920* (Reno: University of Nevada, 1966); W. Turrentine Jackson, *Treasure Hill* (Tucson: University of Arizona, 1966); W. S. Greever, *Bonanza West* (Norman: University of Oklahoma, 1966); Spence, *Mining Engineers and the American West: The Lace-Boot Brigade* (New Haven: Yale University Press, 1969); Jackson, *The Enterprising Scot: Investors in the American West, after 1873* (Edinburgh: Edinburgh University Press, 1968); W. G. Kerr, "Scottish Capital on the American Credit Frontier, Particularly Texas, 1873-1890" (Cambridge: Ph.D. diss., St. John's College, 1967); and Walter K. Ferguson, *Geology and Politics in the Frontier, 1845-1909* (Austin: University of Texas Press, 1969).

    Works of an older vintage include: W. J. Trimble, *The Mining Advance in the Inland Empire* (Madison: University of Wisconsin, 1914), still useful; T. A. Rickard, who unfortunately knew more than he wrote down in his *A History of American Mining* (New York: McGraw-Hill, 1932); and Charles H. Shinn's *Mining Camps, A Study in American Frontier Government* (New York: D. Appleton, 1885), a work which is either praised or criticized today, but seldom ignored. An enormous corpus of literature, referred to more by engineers than by historians, is the bulletins of the United States Geological Survey. Yet the bulletins contain substantial amounts of historical minutiae, unobtainable elsewhere; for

example: James D. Hague, "Mining Industry," in *United States Geological Exploration of the Fortieth Parallel*, 7 vols. (Washington: Government Printing Office, 1870), vol. 3; George F. Becker, "Geology of the Comstock Lode and the Washoe District," *United States Geological Survey, Monograph III* (Washington: Government Printing Office, 1882); Whitman Cross and R. A. F. Penrose, Jr., "Geology and Mining Industries of the Cripple Creek District, Colorado," *United States Geological Survey, Sixteenth Annual Report, 1894-1895*, 4 pts. (Washington: Government Printing Office, 1895), pt. 2; Walter H. Weed, "Geology and Ore Deposits of the Butte District, Montana," *United States Geological Survey, Professional Paper 74* (Washington: Government Printing Office, 1912); and S. F. Emmonds, "Geology and Mining Industry of Leadville, Colorado," *United States Geological Survey, Monograph XII* (Washington: Government Printing Office, 1886).

70. John Farish to Isaac Ellwood, 23 March 1895. Ellwood Collection, Western History Research Center, University of Wyoming, Laramie.
71. Paul, *Mining Frontiers of the Far West, 1848-1880*, pp. 109-34.
72. Some phases of agriculture, such as the cattle industry, have captured heavier amounts of space than the less glamorous farmer and his plow. The above discussion has been restricted to the farming frontier. General studies of widely varying usefulness are: Gilbert C. Fite, *The Farmer's Frontier, 1865-1900* (New York: Holt, Rinehart and Winston, 1966); Fred A. Shannon, *The Farmer's Last Frontier* (New York: Rinehart, 1945); A. T. Steinel, *History of Agriculture in Colorado* (Fort Collins: Colorado State Agricultural College, 1926); Reynold M. Wik, *Steam Power on the American Farm* (Philadelphia: University of Pennsylvania, 1953); H. M. Drache, *The Day of the Bonanza: A History of Bonanza Farming in the Red River Valley of the North* (Fargo: North Dakota Institute for Regional Studies, 1964); and Dennis S. Nordin, "A Revisionist Interpretation of the Patrons of Husbandry, 1867-1900," *The Historian*, 32 (August 1970): 630-43.
73. John Ise, *Sod and Stubble: The Story of a Kansas Homestead* (New York: Wilson-Erickson, 1936).
74. For another view see Henry Nash Smith, *Virgin Land: The American West as Symbol and Myth* (New York: Vintage Books, 1950).
75. Bogue, *Money at Interest* (Ithaca: Cornell University, 1955), p. 223.
76. Martin L. Primack, "Farm Capital Formation as a Use of Farm Labor in the United States, 1880-1910," *Journal of Economic History*, 26 (September 1966): 348-59.
77. Robert P. Swierenga, *Pioneers and Profits: Land Speculation on the Iowa Frontier* (Ames: Iowa State University, 1968).

78. Charles M. Studness, "Development of the Great Plains Grain Farming Economy: Frontier to 1953" (New York: Ph.D. diss., Columbia University, 1963).
79. For approaches to the question, Earl Pomeroy has some stimulating thought in "What Remains of the West?" *Utah Historical Quarterly*, 63 (Winter 1967): 39-55.
80. Scheiber, "Turner's Legacy and the Search for a Reorientation of Western History," *New Mexico Historical Review*, 44 (July 1969): 231-48.
81. On deductive theory and the problems of historical inference, Louis O. Mink manages to be of some assistance in "The Autonomy of Historical Understanding," *History and Theory*, 5, no. 1: 24-47.
82. The historiography of Populism is a pertinent example.
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